

Serial No.: 09/545,394
Group Art Unit: 2174

REMARKS

Claim Rejections - 35 USC §103

Claims 1-16 are rejected under 35 USC §103(a) as being unpatentable over Smith, (USPN 5,878,224, hereinafter "Smith") in view of Rawson, III et al, (USPN 5,265,252, hereinafter "Rawson").

Smith teaches:

"[A]n apparatus and method for preventing overload of a network server by messages received from a source initiating network server transactions. The method and apparatus use available network traffic measurements to estimate target transaction rates and admission factors, and . . . reducing a rate at which new transactions are initiated by the source to match the incoming transaction workload to the target workload when the offered transaction workload exceeds a threshold." (Smith, Abstract) [deletions and underlining for clarity].

Rawson teaches a device driver system with a core that manages the specific functions of a plurality of I/O devices responding to requests from application programs.

"The core includes an operating system interface that is generic to different personal computer operating systems. An operating system has a device driver interface that is unique to the operating system. A conversion program is layered between the core and the operating system for converting communications between the device driver interface of the operating system and the generic operating system interface of the core. The core includes a channel manager including a request dispatcher, request queues, a command initiator, and a plurality of state machines corresponding to state machine in the I/O devices. A transport layer interfaces between the hardware and the channel manager." (Rawson, Abstract) [underlining for clarity]

As per claims 1 and 9, Applicants respectfully traverse the rejections since the Applicants' claimed combination, as exemplified in claim 1, includes the limitations not disclosed in Smith or Rawson of:

"An adaptive admission control system for a server application system, comprising:

a request queue that stores incoming requests before the incoming requests are serviced by the server application;

a discard queue that stores requests;

an actuator coupled to the request queue and the discard queue to determine the input rate of the incoming requests during a processing cycle,

Serial No.: 09/545,394
Group Art Unit: 2174

and to send a target number of requests to the request queue and a remaining number of requests to the discard queue during the next processing cycle;
a controller coupled to the actuator and the request queue to determine the target number based on the difference between actual and desired queue occupancy of the request queue."

Taken as a whole, Smith teaches a source control system where network traffic measurements are used to reduce the new transactions from the source to the application rather than sending the new transactions from the source to different queues at the application.

Taken as a whole, Rawson teaches a system where requests from an application program are converted for controlling different input/output (I/O) devices rather than sending requests to different queues before processing by the application.

It is respectfully submitted that claims 1-9 are allowable under 35 USC §103(a) as being unobvious over Smith in view of Rawson because the Court of Appeals for the Federal Circuit (CAFC) has stated:

"[T]he prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)

Further, Smith teaches reduction of new transactions from a source, which teaches away from the claimed invention, which controls the new transactions at the application. Rawson teaches conversion or translation for different devices, which teaches away from the claimed invention, which controls the number of new transactions at an application.

It is further respectfully submitted that claims 1-9 are allowable under 35 USC §103(a) as being unobvious over Smith in view of Rawson because the CAFC has stated:

"We have noted elsewhere, as a "useful general rule," that references that teach away cannot serve to create a prima facie case of obviousness..." *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984)

Still further, combining Smith and Rawson would provide an inoperative system where new transactions would be reduced and converted so they would be different from those required by the Smith application.

Serial No.: 09/543,394
Group Art Unit: 2174

It is respectfully submitted that claims 1-9 are allowable under 35 USC §103(a) as being unobvious over Smith in view of Rawson because the Court of Appeals for the Federal Circuit (CAFC) has stated:

"If references taken in combination would produce a "seemingly inoperative device," we have held that such references teach away from the combination and thus cannot serve as predicates for a prima facie case of obviousness." *In re Gordon, supra*.

Both Smith and Rawson teach away from the invention and each other, and the references in combination would appear to produce a seemingly inoperative device.

Furthermore, there has been no showing that there is a specific hint, suggestion, or motivation in either Smith or Rawson that would lead to the combination. In *In re Sang-Su Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002), the CAFC held that the conclusion of obviousness may not be made from common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference.

In addition, the Examiner has indicated in the Office Action with regard to Smith:

"a request/listen queue (read mass storage as queue) that stores incoming requests before they are serviced by the server application (402, Fig. 4);" [page 2, item 3. 2nd paragraph]

There is no basis for reading "mass storage" as "queue". These are two different types of devices. Applicants respectfully requested documentary evidence pursuant to MPEP §2144.03 and an Examiner Affidavit pursuant to 37 CFR §1.104(d)(2) (2002) disclosing the Examiner's personal knowledge for the basis of this reading. Since this request has not been responded to, it is respectfully submitted that a prima facie case for obviousness has not been established.

Finally, with regard to Smith, the Examiner has indicated in the Office Action that:

"an actuator coupled to the queue to determine the input rate of requests from the listen queue during previous processing cycles, to send a target number of requests to the request queue from the listen queue and the discard queue during the next processing cycle and a controller coupled to the actuator and the request queue to determine the target number based on the difference between the actual and the desired queue occupancy of the request queue (Fig. 4, 400; col. 2, lines 50-61)." [page 2, item 3, 3rd paragraph]

Serial No.: 09/545,394
Group Art Unit: 2174

However, Smith Fig. 4, 400; col. 2, lines 50-61, actually teaches differently by stating:

"The present invention overcomes the limitations of conventional techniques by implementing a method...[of] reducing a rate at which new transactions are initiated by the source to match the incoming transaction workload to the target workload when the offered transaction workload exceeds a threshold." [deletion, insertion, and underlining for clarity]

With regard to Rawson, the Examiner has indicated in the Office Action on page 3, item 4, 1st paragraph:

"However, Rawson teaches a discard queue (card request queue) that stores requests to be discarded (col. 5, lines 38-44)."

However, Rawson col. 5, lines 38-44, when taken as a whole, teaches the processing of application program commands to various I/O devices rather than requests to be serviced by a server application. This is made clear in Rawson col. 4, lines 3-5:

"Referring to FIG. 2, application programs 16 access I/O devices 32-35 by issuing I/O requests as system calls 43 to the operating system." [underlining for clarity]

As per claims 2 and 10, as explained above, Smith as a whole does not teach the claimed system since Smith col. 2, lines 50-61, actually teaches away from the claimed limitation because Smith reduces the number of source requests. Further, there has been no showing that there is a specific hint or suggestion in either reference that would lead to the combination as required by *In re Sang-Su Lee, supra*.

As per claims 3 and 11, as explained above, Rawson col. 5, lines 38-49, when taken as a whole, teaches the processing of application program commands to various I/O devices and teaches away from requests being serviced by a server application. Further, there has been no showing that there is a specific hint or suggestion in either reference that would lead to the combination as required by *In re Sang-Su Lee, supra*.

As per claims 4 and 12, there has been no showing that there is a specific hint or suggestion in either reference that would lead to the combination as required by *In re Sang-Su Lee, supra*.

Serial No.: 09/545,394
Group Art Unit: 2174

As per claims 5 and 13, as explained above, Rawson col. 5, lines 38-49, when taken as a whole, teaches the processing of application program commands to various I/O devices and teaches away from requests being serviced by a server application. Further, there has been no showing that there is a specific hint or suggestion in either reference that would lead to the combination as required by *In re Sang-Su Lee, supra*.

As per claims 6 and 14, as explained above, both Smith and Rawson teach away from the invention and each other, and the references in combination would appear to produce a seemingly inoperative device so as to be an unobvious combination under *In re Gordon, supra*. Further, there has been no showing that there is a specific hint or suggestion in either reference that would lead to the combination as required by *In re Sang-Su Lee, supra*.

As per claims 7 and 15, it is respectfully submitted that Rawson deals with requests from application programs to operate I/O devices, so there are no "sessions" involved and therefore, no existing session request discard queue or a new session request discard queue are taught or suggested. Further, there has been no showing that there is a specific hint or suggestion in either reference that would lead to the combination as required by *In re Sang-Su Lee, supra*.

As per claims 8 and 16, as explained above, both Smith and Rawson teach away from the invention and each other, and the references in combination would appear to produce a seemingly inoperative device so as to be an unobvious combination under *In re Gordon, supra*. Further, there has been no showing that there is a specific hint or suggestion in either reference that would lead to the combination as required by *In re Sang-Su Lee, supra*. Still further, in Rawson, there is no reason why it would be necessary for a queue to be cleaned up since no "sessions", which could become stale, are involved.

Based on the above, it is respectfully submitted that claims 1-16 are unobvious under 35 USC §103(a) and are patentable over Smith in view of Rawson.

Serial No.: 09/545,394
Group Art Unit: 2174

Claims 17-18 are rejected under 35 USC §103(a) as being unpatentable over Smith, (USPN 5,878,224, hereinafter "Smith") in view of Rawson, III et al, (USPN 5,265,252, hereinafter "Rawson") further in view of the Applicants Admitted Prior Art (hereinafter AAPA).

As per claims 17 and 18, as explained above, both Smith and Rawson teach away from the invention and each other, and the references in combination would appear to produce a seemingly inoperative device so as to be an unobvious combination under *In re* Gordon, supra. Further, there has been no showing that there is a specific hint or suggestion in Smith, Rawson, or AAPA that would lead to the combination as required by *In re* Sang-Su Lee, supra.

Based on the above, it is respectfully submitted that claims 17-18 are unobvious under 35 USC §103(a) and are patentable over Smith in view of Rawson and further in view of AAPA.

The other references cited by the Examiner showing the prior art have been considered and are not believed to disclose, teach, or suggest, either singularly or in combination, Applicants' invention as claimed.

Response to Examiner's Arguments

In the Final Rejection, the Examiner states:

"1. In the remarks, applicant has argued in substance that:"

Applicants respectfully disagree and submit that the Examiner has not addressed the substance of the Applicants' arguments. To the extent that the Examiner has commented, the Applicants respectfully respond.

The Examiner states in the Final Rejection:

"As to point (1), the applicant's claimed invention, similar to Rawson, is a source control system. The new transactions are initiated by the source (Claim 1, lines 1-13)."

Serial No.: 09/545,394
Group Art Unit: 2174

Applicants respectfully disagree. It is respectfully submitted that the preamble of claim 1 states:

"1. An adaptive admission control system for a server application system, comprising:" [underlining for clarity]

As is well known to those having ordinary skill in the art, a source provides requests for a server application system. Thus, a control system for a source does not control a server application system.

The Examiner states in the Final Rejection:

"As to point (2), Rawson teaches a system in which requests from a source are sent to different queues, however, the requests are directed from *one originating queue* as the claimed invention suggests (col. 5, lines 25-45, Fig. 3)." [italics in original]

It is respectfully submitted that Rawson specifically teaches away from the claimed invention in which "an actuator...during a processing cycle...send requests to the request queue and...remaining...requests to the discard queue during the next processing cycle..." by stating in Rawson col. 5, lines 42-44:

"If the adapter is too busy, the excess requests 102 are placed in a card request queue 100 until such time as they can be processed."

Contrary to the Examiner's argument, the above teaches that Rawson requests from the source are either processed by the adapter or placed in the single card request queue; i.e., Rawson does not teach a system in which requests from a source are sent to different queues.

The Examiner's statement after the "however" does not follow because the claim must read on Rawson. Therefore, the Examiner's "as the claimed invention suggests" is not understandable because it indicates through the use of the word "suggests" that the claims do not read on Rawson.

The Examiner states in the Final Rejection:

"As to point (3), FOLDOC Dictionary of Computing defines storage to be any device into which data can be entered, in which they can be held, and from which they can be retrieved at a later time. A queue is also considered to be such a structure, into which data can be entered and drawn out of."

Serial No.: 09/545,394
Group Art Unit: 2174

It is respectfully submitted that the above does not disclose or teach that the Smith "mass storage" is used as a "queue". The FOLDOC Dictionary of Computing defines "Queue" as:

"A first-in first-out data structure used to sequence multiple demands for a resource such as a printer, processor or communications channel. Objects are added to the tail of the queue and taken off the head."

MPEP §2112 states:

"The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ 2d 1955, 1957 (Fed. Cir. 1993)(reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art)."

Since there is no teaching that the Smith "mass storage" provides the first-in first-out data structure of a "queue" as claimed, it is submitted that the requested documentary evidence pursuant to MPEP §2144.03 has not been provided, or at least is not adequate to meet the requirements of MPEP §2144.03, and an Examiner Affidavit pursuant to 37 CFR §1.104(d)(2) (2002) disclosing the Examiner's personal knowledge for the basis of this reading has not been provided. Since this request has not been properly responded to, it is respectfully submitted that a prima facie case for obviousness has not been established.

The Examiner states in the Final Rejection:

"As to point (4), the Examiner has interpreted a discard queue to refer to immediately unprocessed "discarded" requests, similar to the card request queue of the Rawson system (col. 5, lines 42-44)."

It is respectfully submitted that "discard" is defined as:

"to cast aside or dispose of; get rid of" Random House Webster's College Dictionary, p. 383, Random House Inc., c. 1996, 1995, 1992, 1991.

Since Rawson col. 5, lines 42-44, indicates that the requests are not discarded but are held "until such time as they can be processed", the Examiner's interpretation is contrary to the ordinary meaning of the word. It is respectfully submitted that while applicants are their own lexicographers, Examiners are not their own lexicographers when interpreting claims.

Serial No.: 09/545,394
Group Art Unit: 2174

The Examiner states in the Final Rejection regarding claims 2 and 10:

"As to point (5), Smith reduces the number of source requests, however, the claimed invention similarly sends the target number of requests to the request queue and any remaining requests to the discard queue, thereby reducing the number of source requests processed."

It is respectfully submitted that the Examiner is apparently reading Smith on the claimed invention rather than the claimed invention on Smith, as is proper. Claims 2 and 10 do not reduce the number of source requests as shown by the claim language exemplified in claim 2:

"the actuator sends the target number of requests to the request queue and the remaining number of requests to the discard queue during the next processing cycle if the input rate is greater than or equal to the target number of requests."

The Examiner states in the Final Rejection regarding claims 3, 5, 11, and 13:

"As to point (6), the processing of the requests is passed from the request dispatcher to the server application side command initiator (fig. 3). Rawson's system does include the step of processing being serviced by the server application."

Rawson does not have a server application, nor is one shown in Rawson FIG. 3. Applicants respectfully request citation of the column and line number which the Examiner believes describes a server application pursuant to 37 CFR §1.104(c)(2). Applicants respectfully further clarify this argument to specify that Rawson does not teach or suggest the claimed request queue, discard queue, listen queue, target number, random determination, or external listen queue as claimed in claims 3, 5, 11, and 13.

The Examiner states in the Final Rejection regarding claims 6 and 14:

"As to point (7), Smith and Rawson teach queueing systems of receiving and processing requests in an organized manner (Rawson, col. 5, lines 25-49, Smith, col. 2, lines 50-62)."

It is respectfully submitted that each reference taken as a whole teaches away from the combination, as explained above for claims 6 and 14. The Examiner has taken only portions of Smith and Rawson for combination and this is impermissible because the CAFC has stated:

Serial No.: 09/545,394
Group Art Unit: 2174

"One cannot...pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992).

As explained further by the CAFC:

"It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fritch*, *supra*.

The Examiner states in the Final Rejection regarding claims 7 and 15:

"As to point (8), the claimed invention discloses the existence of a "new session queue" and an "existing session request discard queue." However, no disclosure is made to indicate that there are a multitude of "sessions" rather and an ongoing existence of the disclosed queues. Further, the examiner has interpreted every set of requests in Rawson to be a queue (col. 5, lines 25-49). The actual, physical queues of Rawson (and the claimed inventions) are not created in independent "sessions." They have allocated physical space and exist regardless of the sessions involved."

It is respectfully submitted that the Examiner is reading Rawson on the claimed invention rather than the claimed invention on Rawson. A claimed invention does not "disclose" or provide a "disclosure". The question is whether claims 7 and 15 "read" on the references such that the references have the claimed elements. Claims 7 and 15, as exemplified by claim 7, require:

"an existing session request discard queue and a new session request discard queue."

These claimed elements do not read on the combination of Smith or Rawson and are not taught or suggested by these references, singularly or in combination. Thus, claims 7 and 15 are unobvious under 35 USC §103(a) over Smith in view of Rawson.

Based on all the above, it is respectfully submitted that claims 1-18 are unobvious under 35 USC §103(a) and are patentable over Smith in view of Rawson because of *In re Vaeck* (*supra*), *In re Gordon* (*supra*), *In re Sang-Su Lee* (*supra*), MPEP §2112 (*supra*), and *In re Fritch* (*supra*).

Serial No.: 09/545,394
Group Art Unit: 2174

Conclusion

In view of the above, it is submitted that the claims are in condition for allowance and reconsideration of the rejections is respectfully requested. Allowance of claims 1-18 at an early date is solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including any extension of time fees, to Deposit Account No. 08-2025 and please credit any excess fees to such deposit account.

Respectfully submitted,



Mikio Ishimaru
Registration No. 27,449

The Law Offices of Mikio Ishimaru
1110 Sunnyvale-Saratoga Rd., Suite A1
Sunnyvale, CA 94087
Telephone: (408) 738-0592
Fax: (408) 738-0881
Date: September 13, 2004